REMARKS/ARGUMENTS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 10 and 12-21 are pending in the present application, Claim 10 having been amended, and Claims 20 and 21 having been added. Support for the amendment to Claim 10 and new Claims 20 and 21 are found, for example, in the specification at page 10, lines 3-14, and Fig. 2. Thus, no new matter is added.

In the outstanding Office Action, Claims 10 and 12-19 were rejected under 35 U.S.C. §103(a) as unpatentable over Laumen et al. (U.S. Patent No. 6,396,423, hereinafter Laumen) in view of Wang (U.S. Patent No. 6,014,411).

With respect to the rejection of Claim 10 as unpatentable over Laumen and Wang, Applicants respectfully submit that the amendment to Claim 10 overcomes this ground of rejection. Amended Claim 10 recites, *inter alia*,

> observing transmission conditions on a communication channel to detect at least one dynamic parameter of a current transmission condition on the communication channel;
>
> selecting dynamically, as a function of the at least one dynamic parameter, a distribution of elementary coding step redundancies....

The combination of Laumen and Wang do not describe or suggest at least these elements of amended Claim 10.

Laumen is directed to a system of coding and decoding data by matching the data rate of the encoder to the preetablished data rate of the transmission channel. This is done by fine adjustment block 13 either adding or removing one bit, two bits, or three bits of data.

The outstanding Office Action appears to take the position that the cyclic redundancy check (CRC) or Reed-Solomon technique of error correction coding equates to the claimed observing step. The function of error correction coding consists of generating, for a useful

information item, a redundant information item which, during the decoding at the destination, will make it possible to reconstitute the useful information from the information arriving at the destination affected by disturbances occurring on the transmission channel.[1]

Error correct coding techniques do not detect transmission conditions on the communications channel 15 in <u>Laumen</u>. Furthermore, <u>Laumen</u> states "for additional ***detection of erroneous decisions in the inner decoding device***, outer codes on the basis of CRC codes (cyclic redundancy check) or Reed-Solomon codes are used" (emphasis added).[2] The inner decoding device refers to block 22 in Fig. 2 of <u>Laumen</u>, and not the transmission channel 15. It should be noted that block 22 is part of the receiving device and occurs after transmission channel 15. Thus, CRC codes and Reed-Solomon codes are not used for observing transmission conditions of a communication channel to detect at least one dynamic parameter of a current transmission condition on the communication channel.

Furthermore, <u>Laumen</u> discloses that the data rate of the encoder is adjusted to match the data rate of the transmission channel.[3] However, <u>Laumen</u> does not disclose or suggest continuously observing the data rate on transmission channel. <u>Laumen</u> discloses that the data rate of the transmission channel is preestablished.[4] There is no reason to continuously obverse the data rate of the transmission channel in <u>Laumen</u> because the data rate of the transmission channel is preestablished and is known.

Furthermore, <u>Laumen</u> discloses that "the variation of redundancy and thus of block size is ***selected as a function of the subsequent coding steps***" (emphasis added).[5] The outstanding Office Action appears to take the position that the above-noted disclosure of <u>Laumen</u> equates to the claimed selecting step. However, amended Claim 1 requires "selecting dynamically, ***as a function of the at least one dynamic parameter***, a distribution

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[1] Specification, page 1, third paragraph.
[2] <u>Laumen</u>, col. 2, lines 12-15.
[3] <u>Laumen</u>, col. 1, lines 20-34.
[4] <u>Laumen</u>, col. 7, line 3.
[5] <u>Laumen</u>, col. 4, lines 13-17.

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of elementary coding step redundancies" (emphasis added). Subsequent coding steps do not equate to the claimed "dynamic parameter." As discussed above and clarified by the present amendment, the dynamic parameter is not a subsequent coding step, but is a parameter of a current transmission condition on the communication channel.

Furthermore, <u>Wang</u> does not cure the above-noted deficiencies in <u>Laumen</u>. <u>Wang</u> discloses a turbo coding communication method and does not describe or suggest the claimed "observing transmission conditions on a communication channel to detect at least one dynamic parameter of a current transmission condition on the communication channel; selecting dynamically, as a function of the at least one dynamic parameter, a distribution of elementary coding step redundancies...."

In view of the above-noted distinctions, Applicants respectfully submit that amended Claim 10 (and Claims 12-19) patentably distinguish over <u>Laumen</u> and <u>Wang</u>, taken alone or in proper combination.

Moreover, Applicants respectfully submit that new Claim 20 further patentably distinguishes over <u>Laumen</u> and <u>Wang</u>, taken alone or in proper combination. Claim 20 recites "said observing step is performed on a transmission side of the communication channel." The CRC codes and Reed-Solomon codes, which the outstanding Office Action relies upon to disclose the claimed observing step, are performed on a receiving side.[6] In addition, <u>Wang</u> does not teach or suggest "said observing step is performed on a transmission side of the communication channel." Thus, Claim 20 further patentably distinguishes over <u>Laumen</u> and <u>Wang</u>, taken alone or in proper combination.

Moreover, Claim 21 further patentably distinguishes over <u>Laumen</u> and <u>Wang</u>, taken alone or in proper combination. Claim 21 recites "said at least one dynamic parameter is at least one of bit error rate, packet error rate, signal/noise ratio, signal to interference plus noise
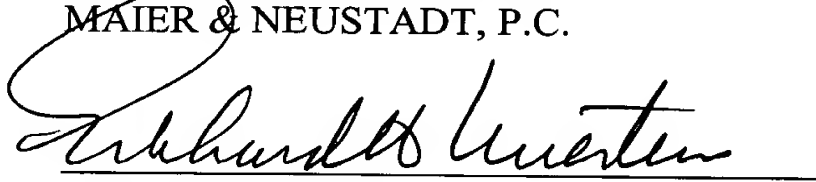
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[6] <u>Laumen</u>, col. 1, line 65.

ratio, number of active users of a telecommunications system, quality of service required by a transmission system, and speed of movement of a user of the transmission system." <u>Laumen</u> and <u>Wang</u>, taken alone or in proper combination, do no describe or suggest the subject matter of Claim 21.

Consequently, in light of the above discussion and in view of the present amendment, the present application is believed to be in condition for allowance and an early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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